IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

PARITY NETWORKS LLC, *Plaintiff*, v. CISCO SYSTEMS, INC., *Defendant.*	§ § § § § § § § §	CIVIL ACTION NO. 6:19-cv-00207 **JURY TRIAL DEMANDED**

FIRST AMENDED COMPLAINT

Plaintiff Parity Networks LLC ("Plaintiff" or "Parity Networks"), by and through its attorneys, for its Original Complaint against Cisco Systems, Inc. ("Defendant" or "Cisco"), and demanding trial by jury, hereby alleges as follows:

I. NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendant's unauthorized use, sale, and offer to sell in the United States of products, methods, processes, services and/or systems that infringe Parity Networks' United States patents, as described herein.

2. Cisco manufactures, provides, uses, sells, offers for sale, imports, and/or distributes infringing products and services; and encourages others to use its products and services in an infringing manner, including their customers, as set forth herein.

3. Parity Networks seeks past and future damages and prejudgment and post judgment interest for Cisco's past infringement of the Patents-in-Suit, as defined below.

II. PARTIES

4. Plaintiff Parity Networks is a limited liability company organized and existing under the laws of the State of Texas. Parity Networks' registered agent for service of process in Texas is InCorp Services, Inc., 815 Brazos Street, Suite 500, Austin, Texas 78701.

5. On information and belief, Defendant Cisco is a corporation organized under the laws of California, having established places of business in this District at 12515-3 Research Park Loop, Austin, TX 78759 and 18615 Tuscany Stone, San Antonio, Texas 78258. Cisco's registered agent for service of process in Texas is Prentice Hall Corporation System, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

III. JURISDICTION AND VENUE

6. This is an action for patent infringement which arises under the Patent Laws of the United States, namely, 35 U.S.C. §§ 271, 281, 283, 284 and 285.

7. This Court has exclusive jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

8. On information and belief, venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because Defendant has a regular and established place of business in this district, transacted business in this District, and has committed and/or induced acts of patent infringement in this district.

9. On information and belief, Defendant Cisco is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

IV. FACTUAL ALLEGATIONS

PATENTS-IN-SUIT

10. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,760,777 (the "'777 Patent"), entitled "Method and Apparatus for Distributing and Providing Fault Tolerance to Path-Vector Routing Protocols Within a Multi-Processor Router," issued on July 6, 2004.

11. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,002,958 (the "'958 Patent"), entitled "Method for Load Balancing with FIFO Guarantees in Multipath Networks," issued on February 21, 2006.

12. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 8,429,296 (the "'296 patent"), entitled "Method and Apparatus for Distributing Routing Instructions Over Multiple Interfaces of a Data Router," issued on April 23, 2013.

13. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 9,306,757 (the "'757 patent"), entitled "Method and Apparatus for Distributing Routing Instructions Over Multiple Interfaces of a Data Router," issued on April 5, 2016. The '757 Patent and the '296 Patent have shared elements to their chain of priorities and mostly common specifications. The '757 Patent is subject to a terminal disclaimer.

14. Together, the foregoing patents are referred to herein as the "Patents-in-Suit." Parity Networks is the assignee of the Patents-in-Suit and has all rights to sue for infringement and collect past and future damages for the infringement thereof.

DEFENDANT'S ACTS

15. Cisco is a world leader in data networking, and provides hardware and software directed to switching and routing network data to its customers in the United States, including in this District.

16. Among a few others, Cisco implements the following four network software systems on its switches and routers: Cisco IOS, Cisco IOS XR, Cisco IOS XE, and Cisco NX-OS. https://www.cisco.com/c/en/us/products/ios-nx-os-software/index.html

17. In that regard, Cisco makes, uses and sells routers and switches running Cisco IOS network software. For example, Cisco makes, uses, sells and offers for sale the Cisco 1000 Series Aggregation Service Router ("ASR"), also known as the Cisco ASR 1000 Series Router.

18. The Cisco ASR 1000 Series Router is described by Cisco as a critical part of the Cisco Borderless Network Architecture.

19. Cisco also claims that the Cisco ASR 1000 Series Router is the industry's first aggregation services router and the first system within the Cisco portfolio to use the Cisco QuantumFlow Processor, a processor built for edge-based service delivery.

20. Cisco asserts that the QuantumFlow Processor is the industry's first fully integrated and programmable flow processor.

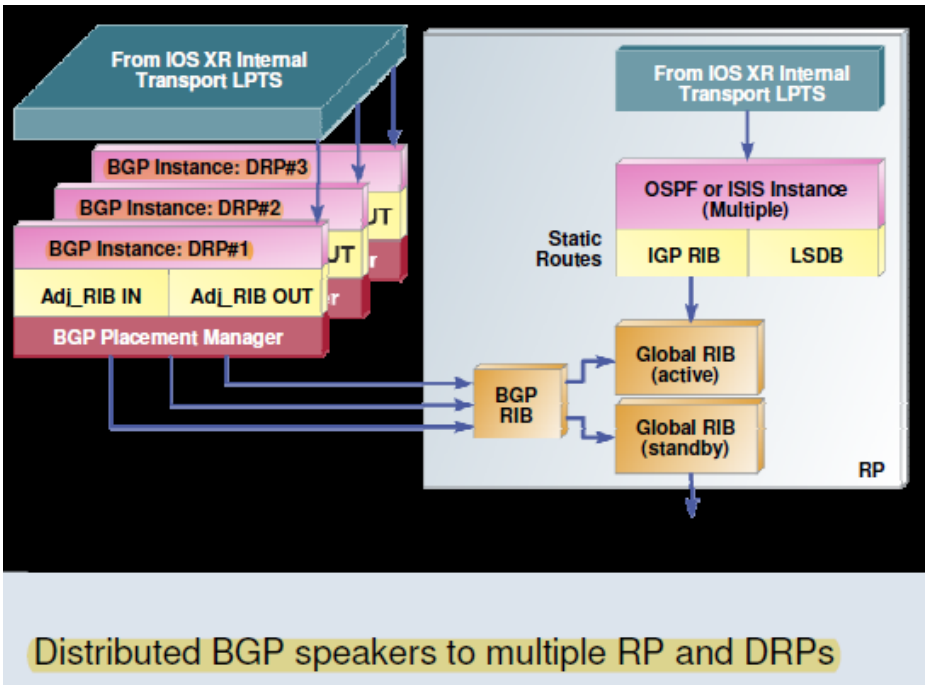
21. The Cisco QuantumFlow Processor combines multi-threaded packet processing, massive parallel processing, customized quality of service (QoS), advanced memory management, and integrated services programmability.

22. Routers and switches running Cisco IOS network software implement software and hardware queueing based at least in part on packet classification.

23. In addition, Cisco makes, uses and sells routers based on the Cisco IOS XR software. Cisco IOS XR Software is a modular and fully distributed network operating system for service provider networks.

24. According to Cisco's documentation, Cisco IOS XR creates a highly available, highly secure routing platform, distributes processes across the control, data, and management

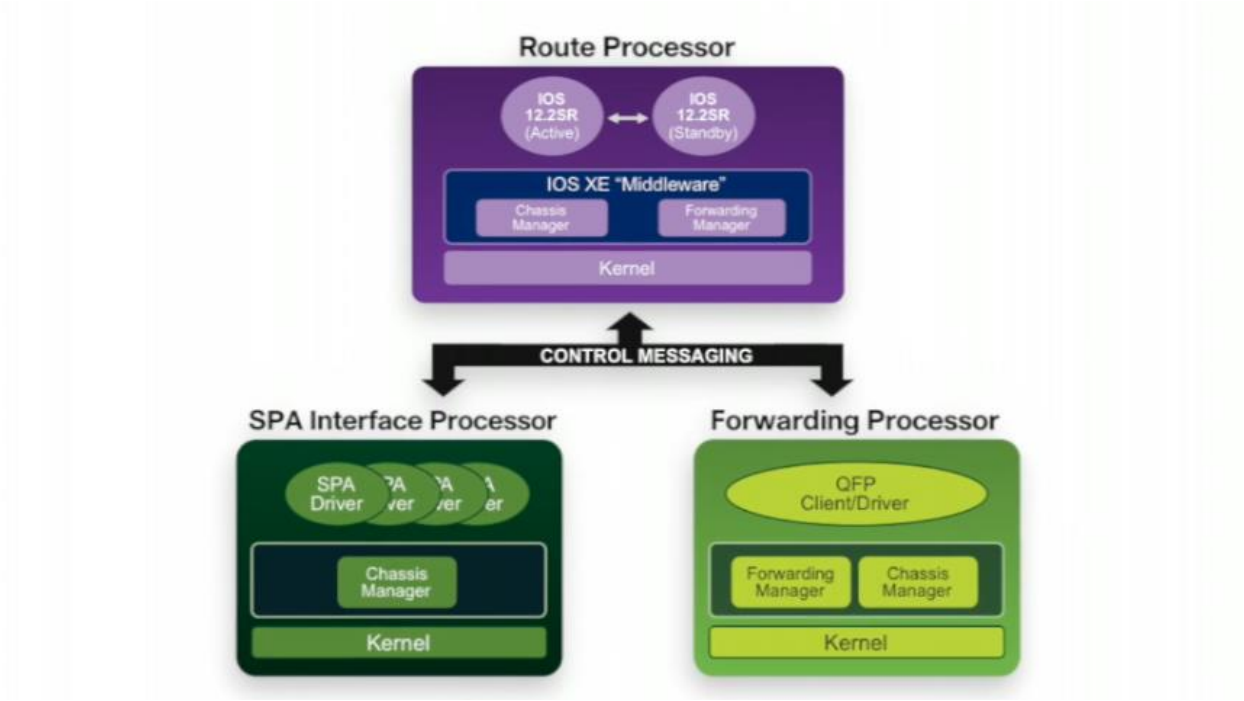
planes with their own access controls, delivers routing-system scalability, service isolation, and manageability and supports network and service convergence. Cisco IOS XR supports a distributed path vector routing protocol such as BGP (Border Gateway Protocol). Cisco supports multiple BGP instances on multiple route processors (RPs) or distributed route processors (DRPs) of a router, as depicted below:



Distributed BGP speakers to multiple RP and DRPs

25. An exemplary product implemented with Cisco IOS XR is the Cisco Carrier Routing System in the United States. The Cisco Carrier Routing System Router is a processor-based data router that implements Open Shortest Path First (OSPF) and Internal Border Gateway Protocol (iBGP) routing protocols, as well as Multiprotocol Label Switching-Label Distribution Protocol (MPLS-LDP) and MPLS Layer 3 VPNs.

26. The ASR 1000 Series Router is implemented with the IOS XE operating system, aspects of which are depicted below by Cisco.



https://www.cisco.com/c/en/us/products/routers/asr-1000-series-aggregation-services-routers/index.html. Cisco lists several products running IOS XE, including the ASR 1000 series. https://www.cisco.com/c/en/us/products/ios-nx-os-software/ios-xe/index.html#~stickynav=2

27. In addition, Cisco implements the Cisco NX-OS, or Nexus Operating System, which supports Multiprotocol Label Switching (MPLS). MPLS is a high-performance packet forwarding technology that integrates the performance and traffic management capabilities of data link layer (Layer 2) switching with the scalability, flexibility, and performance of network-layer (Layer 3) routing.

28. Cisco implements MPLS with the use of normalized labels for packets that are used substantially throughout MPLS-enabled networks.

29. MPLS was introduced as a feature of Cisco NX-OS software for Nexus 7000 Series switches.

30. Cisco instructs its customers regarding the implementation and operation of the accused instrumentalities, including at https://www.cisco.com/c/en/us/support/routers/index.html.

31. On information of belief, Defendant Cisco also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution and modification of its software.

32. Moreover, on information and belief, Defendant Cisco implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Cisco's products.

PRIOR KNOWLEDGE OF THE PATENTS-IN-SUIT

33. By letters dated October 5, 2016 and November 28, 2016, Cisco was provided and actually received notice of the Patents-in-Suit, and consequently has actual or constructive knowledge of each of them. True and correct copies of these letters are attached as **Exhibit 1** and **Exhibit 2**. Cisco's counsel responded on February 23, 2017, representing it would conduct an investigation and would provide a complete response "in due course." A true and correct copy of Cisco's response is attached hereto as **Exhibit 3**. More than two years later, it has not provided a response.

34. In addition, during the course of its own prosecution activities, Cisco and its affiliates have been apprised and gained prior knowledge of at least some of the Patents-in-Suit, including by way of family members. The following table summarizes several examples of instances in which Cisco or the USPTO identified the Patents-in-Suit as material to Cisco's efforts to patent what it asserted to be its own intellectual property. The asterisk denotes a family to family citation.

Patent-in-Suit	**Cisco Pat. or Pub. No.**	**Publication Date**	**Assignee**	**Title**
6,760,777	US5519704A	1996-05-21	Cisco Systems, Inc.	Reliable transport protocol for internetwork routing

	US7349326B1	2008-03-25	Cisco Technology, Inc.	Control of inter-zone/intra-zone recovery using in-band communications
	US7415507B1	2008-08-19	Cisco Technology, Inc.	Logical routers
	US20100265825A1	2010-10-21	Cisco Technology, Inc.	Technique for policy conflict resolution using priority with variance
	US20120263049A1	2012-10-18	Cisco Technology, Inc.	Bgp slow peer detection
	US7860115B1*	2010-12-28	Cisco Technology, Inc.	Withdrawing multiple advertised routes based on a single tag which may be of particular use in border gateway protocol
	US7515525B2*	2009-04-07	Cisco Technology, Inc.	Cooperative TCP / BGP window management for stateful switchover
	US7697416B2*	2010-04-13	Cisco Technolgy, Inc.	Constructing a repair path in the event of non-availability of a routing domain
	US8111616B2*	2012-02-07	Cisco Technology, Inc.	Constructing a repair path in the event of failure of an inter-routing domain system link
	US7957306B2*	2011-06-07	Cisco Technology, Inc.	Providing reachability information in a routing domain of an external destination address in a data communications network
	US20150295815A1*	2015-10-15	Cisco Technology,	Autonomous System (AS) Policy-Adaptive

			Inc., A Corporation Of California	Confederations with Selective Advertisement of AS Numbers to Non-Members
7,002,958	US6512766B2	2003-01-28	Cisco Systems, Inc.	Enhanced internet packet routing lookup
	US7254639B1	2007-08-07	Cisco Technology, Inc.	Methods and apparatus for directing packets among a group of processors
8,429,296	US7424014B2*	2008-09-09	Cisco Technology, Inc.	System and method for local packet transport services within distributed routers
	US7644177B2*	2010-01-05	Cisco Technology, Inc.	Multicast-routing-protocol-independent realization of IP multicast forwarding
	US7295572B1*	2007-11-13	Cisco Technology, Inc.	Storage router and method for routing IP datagrams between data path processors using a fibre channel switch
	US7839843B2*	2010-11-23	Cisco Technology, Inc.	Distributed forwarding in virtual network devices
	US7751416B2*	2010-07-06	Cisco Technology, Inc.	Virtual network device
	US8526427B1*	2013-09-03	Cisco Technology, Inc.	Port-based loadsharing for a satellite switch
	US8990430B2*	2015-03-24	Cisco Technology, Inc.	Interface bundles in virtual network devices
	US8208370B1*	2012-06-26	Cisco Technology, Inc.	Method and system for fast link failover

	US7889733B2*	2011-02-15	Cisco Technology, Inc.	Intelligent adjunct network device
	US7710957B2*	2010-05-04	Cisco Technology, Inc.	System and method for implementing multiple spanning trees per network
	US7706364B2*	2010-04-27	Cisco Technology, Inc.	Virtual network device clusters
	US7436836B2*	2008-10-14	Cisco Technology, Inc.	Method and apparatus for detecting support for a protocol defining supplemental headers
	US7808983B2*	2010-10-05	Cisco Technology, Inc.	Network device architecture for centralized packet processing
	US8730976B2*	2014-05-20	Cisco Technology, Inc.	System and method for preventing erroneous link aggregation due to component relocation
	US8111702B1*	2012-02-07	Cisco Technology, Inc.	Configuring route properties for use in transport tree building
	US9374294B1*	2016-06-21	Cisco Technology, Inc.	On-demand learning in overlay networks
	US9876711B2*	2018-01-23	Cisco Technology, Inc.	Source address translation in overlay networks
	US9397946B1*	2016-07-19	Cisco Technology, Inc.	Forwarding to clusters of service nodes

	US9825857B2*	2017-11-21	Cisco Technology, Inc.	Method for increasing Layer-3 longest prefix match scale
	US9674086B2*	2017-06-06	Cisco Technology, Inc.	Work conserving schedular based on ranking
	US9655232B2*	2017-05-16	Cisco Technology, Inc.	Spanning tree protocol (STP) optimization techniques
	US9509092B2*	2016-11-29	Cisco Technology, Inc.	System and apparatus for network device heat management
	US10116493B2*	2018-10-30	Cisco Technology, Inc.	Recovering from virtual port channel peer failure
	US10142163B2*	2018-11-27	Cisco Technology, Inc.	BFD over VxLAN on vPC uplinks
	US10193750B2*	2019-01-29	Cisco Technology, Inc.	Managing virtual port channel switch peers from software-defined network controller
9,306,757	US7424014B2*	2008-09-09	Cisco Technology, Inc.	System and method for local packet transport services within distributed routers
	US7644177B2*	2010-01-05	Cisco Technology, Inc.	Multicast-routing-protocol-independent realization of IP multicast forwarding
	US7295572B1*	2007-11-13	Cisco Technology, Inc.	Storage router and method for routing IP datagrams between data path processors using a fibre channel switch

	US7839843B2*	2010-11-23	Cisco Technology, Inc.	Distributed forwarding in virtual network devices
	US7751416B2*	2010-07-06	Cisco Technology, Inc.	Virtual network device
	US8526427B1*	2013-09-03	Cisco Technology, Inc.	Port-based loadsharing for a satellite switch
	US8990430B2*	2015-03-24	Cisco Technology, Inc.	Interface bundles in virtual network devices
	US8208370B1*	2012-06-26	Cisco Technology, Inc.	Method and system for fast link failover
	US7889733B2*	2011-02-15	Cisco Technology, Inc.	Intelligent adjunct network device
	US7710957B2*	2010-05-04	Cisco Technology, Inc.	System and method for implementing multiple spanning trees per network
	US7706364B2*	2010-04-27	Cisco Technology, Inc.	Virtual network device clusters
	US7436836B2*	2008-10-14	Cisco Technology, Inc.	Method and apparatus for detecting support for a protocol defining supplemental headers
	US7808983B2*	2010-10-05	Cisco Technology, Inc.	Network device architecture for centralized packet processing

	US8730976B2*	2014-05-20	Cisco Technology, Inc.	System and method for preventing erroneous link aggregation due to component relocation
	US8111702B1*	2012-02-07	Cisco Technology, Inc.	Configuring route properties for use in transport tree building
	US9374294B1*	2016-06-21	Cisco Technology, Inc.	On-demand learning in overlay networks
	US9876711B2*	2018-01-23	Cisco Technology, Inc.	Source address translation in overlay networks
	US9397946B1*	2016-07-19	Cisco Technology, Inc.	Forwarding to clusters of service nodes
	US9825857B2*	2017-11-21	Cisco Technology, Inc.	Method for increasing Layer-3 longest prefix match scale
	US9674086B2*	2017-06-06	Cisco Technology, Inc.	Work conserving schedular based on ranking
	US9655232B2*	2017-05-16	Cisco Technology, Inc.	Spanning tree protocol (STP) optimization techniques
	US9509092B2*	2016-11-29	Cisco Technology, Inc.	System and apparatus for network device heat management
	US10116493B2*	2018-10-30	Cisco Technology, Inc.	Recovering from virtual port channel peer failure

	US10142163B2 *	2018-11-27	Cisco Technology, Inc.	BFD over VxLAN on vPC uplinks
	US10193750B2 *	2019-01-29	Cisco Technology, Inc.	Managing virtual port channel switch peers from software-defined network controller

V. COUNTS OF PATENT INFRINGEMENT

COUNT ONE
INFRINGEMENT OF U.S. PATENT NO. 6,760,777

35. Parity Networks incorporates by reference its allegations in Paragraphs 1-34 as if fully restated in this paragraph.

36. Parity Networks is the assignee and owner of all right, title and interest to the '777 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

37. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 7 of the '777 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '777 Patent. Defendant Cisco is thus liable for direct infringement of the '777 Patent pursuant to 35 U.S.C. § 271(a).

38. Exemplary infringing products include the Cisco IOS XR is the Cisco Carrier Routing System, which products include multiple processors and wherein different instances of BGP are running on different route processors (RPs) or distributed route processors (DRPs) of the multi-processor router. Each instance of BGP establishes a routing session with an external router.

39. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 7 of the '777 Patent, including actively inducing infringement of the '777 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Cisco knows or should know infringe one or more claims of the '777 Patent. Cisco instructs its customers to make and use the patented inventions of the '777 Patent by operating Cisco's products in accordance with Cisco's specifications. Cisco specifically intends its customers to infringe by implementing its routers and switches to include multiple processors and instantiate different instances of BGP on different route processors (RPs) or distributed route processors (DRPs) of the multi-processor router in an infringing manner.

40. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 7 of the '777 Patent, including contributory infringement of the '777 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the infringing products. Cisco knows that the infringing products (i) constitute a material part of the inventions claimed in the '777 Patent; (ii) are especially made or adapted to infringe the '777 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in operating systems used to sort and process data packets into two or more categories of different priority for processing and a queue for queuing sorted packets destined for the CPU in an infringing manner.

41. As a result of Cisco's infringement of the '777 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT TWO
INFRINGEMENT OF U.S. PATENT NO. 7,002,958

42. Parity Networks incorporates by reference its allegations in Paragraphs 1-41 as if fully restated in this paragraph.

43. Parity Networks is the assignee and owner of all right, title and interest to the '958 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

44. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '958 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '958 Patent. Defendant Cisco is thus liable for direct infringement of the '958 Patent pursuant to 35 U.S.C. § 271(a).

45. Exemplary infringing products include switches and routers with Cisco NX-OS software, including Nexus 7000 Series switches wherein MPLS is used to produce a normalized tag substantially throughout the network.

46. On information and belief, at least since the filing of the Original Complaint, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '958 Patent, including actively inducing infringement of the '958 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing

articles and methods that Cisco knows or should know infringe one or more claims of the '958 Patent. Cisco instructs its customers to make and use the patented inventions of the '958 patent by operating Cisco's products in accordance with Cisco's specifications. Cisco specifically intends its customers to infringe by designing and fabricating its switches and routers to implement MPLS in an infringing manner, as set forth above.

47. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '958 Patent, including contributory infringement of the '958 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the infringing products. Cisco knows that the infringing products (i) constitute a material part of the inventions claimed in the '958 Patent; (ii) are especially made or adapted to infringe the '958 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in operating systems to implement MPLS in an infringing manner, as set forth above.

48. As a result of Cisco's infringement of the '958 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT THREE
INFRINGEMENT OF U.S. PATENT NO. 8,429,296

49. Parity Networks incorporates by reference its allegations in Paragraphs 1-48 as if fully restated in this paragraph.

50. Parity Networks is the assignee and owner of all right, title and interest to the '296 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

51. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the ’296 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the ’296 Patent. Defendant Cisco is thus liable for direct infringement of the ’296 Patent pursuant to 35 U.S.C. § 271(a).

52. Exemplary infringing products include Cisco routers based on the Cisco IOS software, including the Cisco ASR 1000 Series Router, wherein a Cisco IOS software application executed on multi-processor data router sends an “ip igmp join-group” command to an external router to join a multicast group.

53. On information and belief, at least since the filing of the Original Complaint, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the ’296 Patent, including actively inducing infringement of the ’296 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Cisco knows or should know infringe one or more claims of the ’296 Patent. Cisco instructs its customers to make and use the patented inventions of the ’296 Patent by operating Cisco’s products in accordance with Cisco’s specifications. Cisco specifically intends its customers to infringe by implementing its Cisco IOS on its switches and routers in an infringing manner.

54. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the ’296 Patent, including contributory infringement of the ’296 Patent under 35 U.S.C. § 271(c) and/or § 271(f),

either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the infringing products. Cisco knows that the infringing products (i) constitute a material part of the inventions claimed in the '296 Patent; (ii) are especially made or adapted to infringe the '296 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in operating systems for its switches and routers in an infringing manner.

55. As a result of Cisco's infringement of the '296 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FOUR
INFRINGEMENT OF U.S. PATENT NO. 9,306,757

56. Parity Networks incorporates by reference its allegations in Paragraphs 1-55 as if fully restated in this paragraph.

57. Parity Networks is the assignee and owner of all right, title and interest to the '757 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

58. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 13 of the '757 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '757 Patent. Defendant Cisco is thus liable for direct infringement of the '757 Patent pursuant to 35 U.S.C. § 271(a).

59. Exemplary infringing products include Cisco routers based on the Cisco IOS software, including the Cisco ASR 1000 Series Router, wherein a Cisco IOS software application

executed on multi-processor data router sends an "ip igmp join-group" command to an external router to join a multicast group.

60. On information and belief, at least since the filing of the Original Complaint, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 13 of the '757 Patent, including actively inducing infringement of the '757 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Cisco knows or should know infringe one or more claims of the '757 Patent. Cisco instructs its customers to make and use the patented inventions of the '757 Patent by operating Cisco's products in accordance with Cisco's specifications. Cisco specifically intends its customers to infringe by implementing its Cisco IOS on its switches and routers in an infringing manner.

61. On information and belief, Defendant Cisco, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 13 of the '757 Patent, including contributory infringement of the '757 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents, by selling, offering for sale, and/or importing into the United States, the infringing products. Cisco knows that the infringing products (i) constitute a material part of the inventions claimed in the '757 Patent; (ii) are especially made or adapted to infringe the '757 Patent; (iii) are not staple articles or commodities of commerce suitable for non-infringing use; and (iv) are components used for or in operating systems for its switches and routers in an infringing manner.

62. As a result of Cisco's infringement of the '757 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

VI. WILLFUL INFRINGEMENT

63. On multiple occasions, Cisco has been provided notice of infringement of the Patents-in-Suit by direct communications from Plaintiff's representatives.

64. Plaintiff further alleges that, in connection with the knowledge it gained in connection with its own prosecution activities, Defendant has received actual notice of at least the '777 Patent, the '958 Patent, and the '757 Patent.

65. Notwithstanding this knowledge, Defendant has knowingly or with reckless disregard willfully infringed one or more of the foregoing Patents-in-Suit. Defendant has thus had actual notice of infringement of one or more of the Patents-in-Suit and acted despite an objectively high likelihood that its actions constituted infringement of Plaintiff's valid patent rights.

66. This objective risk was either known or so obvious that it should have been known to Defendant. Accordingly, Plaintiff seeks enhanced damages pursuant to 35 U.S.C. § 284.

VII. JURY DEMAND

67. Plaintiff Parity Networks demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

VIII. PRAYER FOR RELIEF

WHEREFORE, Parity Networks prays for judgment and seeks relief against Defendant as follows:

A. That the Court determine that one or more claims of the Patents-in-Suit is infringed by Defendant Cisco, either literally or under the doctrine of equivalents;

B. That the Court award damages adequate to compensate Parity Networks for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement;

C. That the Court permanently enjoin Defendant pursuant to 35 U.S.C. § 283;

D. That the Court award enhanced damages pursuant to 35 U.S.C. §284; and

E. That the Court award such other relief to Parity Networks as the Court deems just and proper.

DATED: June 7, 2019

Respectfully submitted,

/s/ Andrew G. DiNovo
Andrew G. DiNovo
Texas State Bar No. 00790594
adinovo@dinovoprice.com
Adam G. Price
Texas State Bar No. 24027750
aprice@dinovoprice.com
Daniel L. Schmid
Texas State Bar No. 24093118
dschmid@dinovoprice.com
DINOVO PRICE LLP
7000 N. MoPac Expressway, Suite 350
Austin, Texas 78731
Telephone: (512) 539-2626
Telecopier: (512) 539-2627

Counsel for Plaintiff Parity Networks LLC

CERTIFICATE OF SERVICE

I hereby certify that on the 7th of June 2019, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system.

/s/ Andrew G. DiNovo